

WHAT IS CLAIMED IS:

1. A recording apparatus for recording an image
on a recording medium by using a recording head which
can form dots with a plurality of dot diameters, the
5 recording apparatus comprising:

deciding means for deciding an area where the
recording head ejects the ink in a recording area
including the recording medium; and

10 recording controlling means for making change so
as to decrease ejection frequency of the dot formed by
the relatively smaller dot diameter in the plurality of
dot diameters, when the deciding means decides that the
recording head ejects the ink in the area near an end
portion of the recording medium.

15 2. A recording apparatus according to claim 1,
wherein the recording controlling means makes the
change so as to increase the ejection frequency of the
dot formed by a relatively larger dot diameter in the
20 plurality of dot diameters.

3. A recording apparatus according to claim 1 ,
in which the recording controlling means makes the
change so as to decrease the ejection frequency of the
25 dot formed by the dot diameter smaller than that of the
recording area in a central portion of the recording
medium.

BEST AVAILABLE COPY

4. A recording apparatus according to claim 1, in which the area near the end portion of the recording medium is the area in which a conveying state of the recording medium is unstable.

5

5. A recording apparatus according to claim 1, in which the recording controlling means changes the ejection frequency so that the dot having the relatively smaller dot diameter is not ejected, when
10 the deciding means decides that the recording head ejects the ink in the recording area outside the recording medium.

6. A recording apparatus according to claim 1, in
15 which the recording controlling means gradually changes the ejection frequency when the recording controlling means changes the ejection frequency of the dot having a predetermined diameter.

20 7. A recording apparatus according to claim 1, in which the recording controlling means changes the ejection frequency in a step manner when the recording controlling means changes the ejection frequency of the dot having the predetermined diameter.

25

8. A recording apparatus for performing recording to a recording medium based on image data by using a

BEST AVAILABLE COPY

recording head which can eject ink droplets having different volumes, the recording apparatus comprising:

deciding means for deciding an area where the recording is performed in a recording area by the recording head;

setting means for setting each of ratios of recordings by the ink droplets having the different volumes in accordance with decision result of the deciding means; and

recording means for performing the recordings by the ink droplets having the different volumes with the ratios set by the setting means.

9. A recording apparatus according to claim 8, wherein the setting means sets the ratio of recording by the ink droplet having the relatively smaller volume in the ink droplets having the different volumes to a lower level, when the deciding means decides that the recording is performed in the area near an end portion of the recording medium.

10. A recording apparatus according to claim 8, in which the setting means sets the ratio of recording by the ink droplet having the relatively larger volume in the ink droplets having the different volumes to a higher level, when the deciding means decides that the recording is performed in the area near the end portion

BEST AVAILABLE COPY

of the recording medium.

11. A recording method in a recording apparatus
for recording an image on a recording medium by using a
5 recording head which can form dots with a plurality of
dot diameters, the recording method comprising:

a decision step of deciding an area where the
recording head ejects the ink in a recording area
including the recording medium;

10 a change step of making change so as to decrease
ejection frequency of the dot formed by the relatively
smaller dot diameter in the plurality of dot diameters,
when, in the decision step, it is decided that the
recording head ejects the ink in the area near an end
15 portion of the recording medium; and

a recording step of forming the dot at the
ejection frequency changed by the change step.

12. A recording method according to claim 11,
20 wherein the change step makes the change so as to
increase the ejection frequency of the dot formed by
the relatively larger dot diameter in the plurality of
dot diameters.

25 13. A recording method according to claim 11, in
which the change step makes the change so as to
decrease the ejection frequency of the dot formed by

BEST AVAILABLE COPY

the dot diameter smaller than that of the recording area in a central portion of the recording medium.

14. A recording method according to claim 11, in
5 which the change step changes the ejection frequency so that the dot having the relatively smaller dot diameter is not ejected, when, in the decision step, it is decided that the recording head ejects the ink in the recording area outside the recording medium.

10

15. A recording method according to claim 11, in which the change step gradually changes the ejection frequency when the change step changes the ejection frequency of the dot having a predetermined diameter.

15

16. A recording method according to claim 11, in which the change step changes the ejection frequency in a step manner when the change step changes the ejection frequency of the dot having the predetermined diameter.

20

17. A recording method in a recording apparatus for performing recording to a recording medium based on image data by using a recording head which can eject ink droplets having different volumes, the recording
25 method comprising:

a decision step of deciding an area where the recording is performed in a recording area by the

BEST AVAILABLE COPY

recording head;

a setting step of setting each of ratios of recordings by the ink droplets having the different volumes in accordance with decision result in the
5 decision step; and

a recording step of performing the recordings by the ink droplets having the different volumes with the ratios set by the setting step.

10 18. A recording method according to claim 17, wherein the setting step sets the ratio of recording by the ink droplet having the relatively smaller volume in the ink droplets having the different volumes to a lower level, when, in the decision step, it is decided
15 that the recording is performed in the area near an end portion of the recording medium.

19. A recording method according to claim 17, in which the setting step sets the ratio recording by the
20 ink droplet having the relatively larger volume in the ink droplets having the different volumes to a higher level, when, in the decision step, it is decided that the recording is performed in the area near the end portion of the recording medium.

BEST AVAILABLE COPY